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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,833

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Miyoshi Watanabe

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EXAMINER

ROBINSON, CHANCEITY N

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,833	Applicant(s) WATANABE ET AL.	
	Examiner CHANCEITY N. ROBINSON	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-15 and 27-31 are pending.

DETAILED ACTION

2. The Applicant's request for reconsideration filed on June 12, 2008 was received. Claims 1-15 have been amended. Claims 27-31 have been added. 16-26 are canceled.

3. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on February 12, 2007.

Claim Objections

4. Claim 28 is objected to because of the following informalities: the typo "o" should be change to read "to claim 1" in the dependent claim 28. Appropriate correction is required.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-15 and 27-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending

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Application No. 12/155,818. Although the conflicting claims are not identical, they are not patentably distinct from each other. The '818 copending application is related to a method for manufacturing a relief material for seamless printing using a liquid-state photosensitive resin, the method comprising: a setting step of setting a workpiece using either printing cylinder and sleeve; a supplying step of supply a liquid-state photosensitive resin; a molding step of molding the liquid-state photosensitive resin; and exposing step of forming a photosensitive resin cured layer. The instant disclosure recites a method of manufacturing a relief material for seamless printing using a liquid-state photosensitive resin, the method comprising: setting a workpiece using either of a printing cylinder or a printing sleeve; supplying a liquid-state photosensitive resin; applying the liquid-state photosensitive resin supplied to the resin receiving plate; and exposing high-intensity ultraviolet light to the liquid-state photosensitive resin.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-9, 13-15 and 28-31 are rejected under 35 U.S.C. 102(a) as being anticipated by Ogata (JP 2003-241397).

Regarding claims 1-11, 13 and 28-31, Ogata discloses method for manufacturing seamless sleeve body for printing which comprises setting a workpiece using either of a printing cylinder or a printing sleeve, which is supported by metallic mandrel to a holding and rotating device for holding and rotating the workpiece (see figure and claims 1-3); supplying (spreading) a liquid-state photosensitive resin having a viscosity ranges from 500-1000P at 20 degrees Celsius [0026] is supplied to the resin receiving plate from at least one or more resin supplying nozzles of resin supplying device in an axial direction of the workpiece [0027] whose front end has a doctor blade shape[0028] form a resin supplying device in a linear mode by linearly moving the resin supplying device in an axial direction of the workpiece; applying the liquid-state photosensitive resin supplied to the resin plate to outer periphery of the workpiece at an applied thickness of 3mm [0029]while rotating the workpiece; and exposing high-intensity ultraviolet light of from and with intensity of 10 mW/cm² or more to the liquid-state photosensitive resin applied to the outer periphery of the workpiece while rotating the workpiece to form photosensitive resin cured layer by optically curing the liquid-state photosensitive resin so that it can be carved by an infrared laser beam [0030-0034]. Further, Ogata discloses a shaping step [0028], removing steps [0010], a carving step and a cleaning (washing) step [0035]

Claim Rejections - 35 USC § 103

9. Claims 1-3, 5 and 29 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Watanabe (JP 2002-079645) in view of Bode et al. (EP 1,158,365 A1).

Regarding claims 1-3 and 5 , Watanabe discloses a spreading process which supplies photopolymer liquid to a cylinder peripheral face while rotating a cylinder (resin supplying means), by control based on the exposure stroke, and digital recording signal which an activity

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beam of light is irradiated and carry out photo-curing of the photopolymer to the applied photopolymer liquid concerned. See abstract and claim 1. The manufacture of the seamless cylinder printing is the ultraviolet rays which is the activity beam of light (ultraviolet rays), and is characterized by changing to sensible layer by which ablation is carried out to the infrared radiation of wavelengths regions after photopolymer liquid hardens by the exposure concerned in an exposure stroke. See paragraphs [0009-0015 & 0034] & claims 2-9. The photopolymer liquid is equipped with a means to detect angle of rotation of a cylinder and a means to apply photopolymer liquid to a thickness. See claim 9. Further, Watanabe discloses that the manufacturing installation of the seamless cylinder printing characterized by having the device which holds said laser sculpture head in fixed distance from a cylinder face and cylinder axis longitudinal direction is made to carry out linearity migration. The manufacturing installation and device is disclosed by Watanabe in figures 1-3. The photopolymer liquid spreading device, (110) arranged above the cylinder, (100) holds the bucket (111) which holds the photopolymer liquid 10 straight-line processing the tip of the stationary plate (112) which constitutes the bucket (111) concerned is carried out with high precision as a doctor blade. See paragraphs [0024 - 0025] and figures 1-3. Watanabe teaches a method for producing relief material for seamless flexographic printing using a liquid photosensitive resin comprising of a setting step, supplying step, molding step, and exposing step. However, Watanabe does not disclose having a least one end of the resin receiving plate having a resin flow preventive movable dam linearly movable in the axial direction.

Bode et al. disclose a coating roll and a container for the coating liquid, both mounted on a coating table (preventive moveable dam). The coating table can be moved by controller driven

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motors in a lateral direction, left and right, parallel to the horizontal axis of the printing cylinder. Furthermore, Bode teach the coating table can be moved by motors up and down, so that coating roll can be moved upwards and downward relative to printing surface. See paragraphs [0016-0018, 0020-0037].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a coating table (preventive moveable dam) onto the relief material of Watanabe, because Bode et al. teach the use of the table to provide uniformity, apply optional width and high coating accuracy. See paragraphs [0036-0037].

Regarding claim 3, Watanabe does not explicitly disclose the shaping the surface of the photosensitive resin cured layer. However, Bode et al. disclose a shaping step by simultaneously rotating of printing cylinder and rotating and moving of the coating roll coats a thin layer of the coating liquid onto the surface of printing cylinder. Furthermore, Bode et al. disclose a gap of the thickness of the fluid film is adjusted between the surface of the printing cylinder and the outer surface of the coating roll. The uniformity and thickness of the coating can be controlled by rotation of the printing cylinder, rotation of the coating roll and linear speed of a coating table, which method coats very clean prodducing high-quality flexographic printing forms. See paragraphs [0017-0018, 0020 & 0035-0037].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a shaping step into the method of manufacturing seamless printing plate of Watanabe, because Bode et al. teach the use of a shaping step to have uniform, high coating accuracy, high sleeve-to-sleeve reproducibility and thickness. See paragraphs [00018 & 0035-0037].

Regarding claim 29, Watanabe et al. disclose the resin supplying device includes a resin supplying nozzle (air blow nozzle and/or vacuum suction nozzle [claim 12]).

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (JP 2002-079645) in view of Bode et al. (EP 1,158,365 A1) as applied to claims 1-3, 5 and 29 above and further in view of Kozaki et al. (US 2002/0187429 A1).

Regarding claim 4, Watanabe discloses the seamless cylinder printing manufacture with ultraviolet rays whose activity beam of light is 200-400nm of wavelength. See claim 3 & paragraph [0027]. Watanabe fails to disclose the intensity of said ultraviolet rays. However, Kozaki et al. disclose said whole surface of the photosensitive resin sleeve was exposed in a light exposure using an ultraviolet fluorescent lamp of $12\text{mW}/\text{cm}^2$. See example 1 & paragraph [0074].

Furthermore, Kozaki et al. do not explicitly disclose the viscosity of the liquid photosensitive resins. Nevertheless, it is will known in the art that the viscosity of the liquid photosensitive resin is in a range of 10kPa at 20°C as evidence by Yamada et al. (US 2007/0160928 A1). See paragraph [0061].

11. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (JP 2002-079645) in view of Bode et al. (EP 1,158,365 A1) as applied to claims 1-3, 5 and 29 above, and further in view of Torisawa (2002/0186294).

Regarding claims 27, Wantanbe et al. do not explicitly disclose the angle of inclination of from 15 to 75° . However, Torisawa (2002/0186294) et al. disclose an image forming device for printing plate which disclose the angle on inclination is set to be greater than 0 degree and less

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than 45 degree (abstract and [0027]). Alternatively, Torisawa et al. recognize the angle of inclination depends on the rigidity of the sheet-shaped recording material (photosensitive layer. [0034]). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/optimize the angle of inclination. Discovery of optimum value of result effective variable in known process is ordinarily within skill of art. *In re Boesch*, CCPA 1980, 617 F.2d 272, 205 USPQ215.

Nevertheless, it would have been obvious to one of ordinary skill in the art to include an angle of inclination to the method of Wantanabe et al in view of Bode et al., because the angle of inclination aids in the rigidity of the photosensitive resin.

Response to Amendment

Claim Objections

12. The claim objections under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim, on claims 6-15 are withdrawn, because the claims 6-15 have been amended in proper dependent form.

Claim Rejections - 35 USC § 112

13. The claim rejections under 35 U.S.C. 112, second paragraph, on claims 1-5 are withdrawn, because the claims have been amended.

Claim Rejections - 35 USC § 103

14. The claim rejections under 35 U.S.C. 103 (a) as being unpatentable over Watanabe in view of Kozaki et al., on claims 1 and 4-5 are withdrawn, because the claims have been amended to included the limitation "by linearly moving the resin supplying device in an axial direction of the work piece".

Response to Arguments

15. Applicant's arguments filed June 12, 2008 have been fully considered but they are not persuasive.

Applicant's principal arguments are

(a) Wantanabe discloses the doctor blade is integrated with the bucket and that the opening and closing of plate opens or closes the bottom of the bucket and has the problem of bubble when the bucket is opened or closed or in the smoothing step by the doctor blade and forms a deficit portion near the resin layer surface. The present application method avoids such bubbles. Wantanabe do not disclose or suggest a linear mode of application of the resin.

(a) Examiner notes that Applicant does not claim the doctor blade cannot be integrated with the bucket, but only claims the doctor blade is present in the method. With regards to the

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mode of application of the resin, Examiner notes this is an added limitation in independent claim

1. Therefore, the examiner has added a new rejection on claims 1-15 and 27-31.

(b) Kozaki disclose a cutter knife which does not have the same function as that of the doctor blade of the present application claim 1. Nor does the Examiner refer to anywhere in the reference that function is described.

(b) Examiner notes that Applicant does not claim the function of doctor blade, but claim only that front end has a doctor blade shape. Examiner notes that Kozaki disclose the use of the knife is to formed a layer without any fault of pinhole and seamless flexographic printing plate; therefore Examiner notes the doctor blade and cutter knife is applying a layer (resin) to the rotating work piece without any bubbles or pinholes.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANCEITY N. ROBINSON whose telephone number is (571)270-3786. The examiner can normally be reached on Monday to Thursday: 7:30 am-5:30 pm eastern time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanceity N Robinson/
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795